

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A fuel reforming apparatus comprising:

a reforming catalyst that reforms raw gas including hydrocarbonic fuel into reformed gas including hydrogen; and

a filtering member (1) comprised of an interstitial material including a plurality of gaps having a predetermined effective diameter equal to or smaller than a selected effective diameter from 10 to 100 μm for trapping soot that is generated in the raw gas due to the hydrocarbonic fuel, and (2) that carries the reforming catalyst on at least one face of the filtering member, and that reforms the raw gas into the reformed gas while filtering the raw gas.

2. (Original) The fuel reforming apparatus according to claim 1, further comprising:

a raw material supply flow passage that causes the raw gas to flow along a first face of the filtering member and that supplies the raw gas to the filtering member; and

a processed gas flow passage that causes reformed and filtered gas to flow along a second face of the filtering member.

3. (Original) The fuel reforming apparatus according to claim 2, wherein:

the raw material supply flow passage causes the raw gas to flow along the first face of the filtering member and substantially parallel thereto, and

the processed gas flow passage causes the reformed and filtered gas to flow along the second face of the filtering member and substantially parallel thereto.

4. (Original) The fuel reforming apparatus according to claim 3, wherein the raw material supply flow passage, the filtering member and the processed gas flow passage are constructed using a monolithic carrier made from the interstitial material.

5. (Original) The fuel reforming apparatus according to claim 4, wherein the reforming catalyst is carried by the filtering member on the second face on the side of the processed gas flow passage.

6. (Original) The fuel reforming apparatus according to claim 5, wherein the first face of the filtering member on the side of the raw material supply flow passage is inactivated.

7. (Original) The fuel reforming apparatus according to claim 4, wherein the interstitial material forming the filtering member is formed from one of a porous material, a mesh material, a foamed material, non-woven fabric, and a sintered material.

8. (Original) The fuel reforming apparatus according to claim 2, wherein the reforming catalyst is carried by the filtering member on the second face on the side of the processed gas flow passage.

9. (Original) The fuel reforming apparatus according to claim 8, wherein the first face of the filtering member on the side of the raw material supply flow passage is inactivated.

10. (Original) The fuel reforming apparatus according to claim 9, wherein the first face of the filtering member on the side of the raw material supply flow passage is inactivated using alumina.

11. (Original) The fuel reforming apparatus according to claim 8, further comprising:

a partial oxidation catalyst that partially oxidizes the hydrocarbonic fuel,
wherein the partial oxidation catalyst is carried by the filtering member on the first face on the side of the raw material supply flow passage.

12. (Original) The fuel reforming apparatus according to claim 8, wherein the reforming catalyst is additionally carried by the filtering member also on the first face on the side of the raw material supply flow passage.

13. (Original) The fuel reforming apparatus according to claim 8, wherein the reforming catalyst is additionally carried by the filtering member also on the entire surfaces of the gaps.

14-15. (Cancelled)

16. (Original) The fuel reforming apparatus according to claim 2, wherein the interstitial material forming the filtering member is formed from one of a porous material, a mesh material, a foamed material, non-woven fabric, and a sintered material.

17-18. (Cancelled)

19. (Original) The fuel reforming apparatus according to claim 1, further comprising:

a raw material preparing portion that gasifies hydrocarbonic fuel and that mixes air with water vapors to prepare raw gas,

wherein the raw material preparing portion can increase an amount of air by a predetermined amount with respect to raw gas.

20. (Original) The fuel reforming apparatus according to claim 1, wherein the porous material forming the filtering member is formed from one of a porous material, a mesh material, a foamed material, non-woven fabric, and a sintered material.

21. (Currently Amended) A fuel reforming apparatus comprising:

reforming means for reforming raw gas including hydrocarbonic fuel into reformed gas including hydrogen using a reforming catalyst; and

soot trapping means for trapping soot generated in the raw gas, wherein the soot trapping means includes a plurality of gaps having a predetermined effective diameter

from 10 to 100 µm for trapping soot that is generated in the raw gas due to the hydrocarbonic fuel.

22. (Currently Amended) The fuel reforming apparatus according to claim 21, wherein the soot trapping means comprises a filtering member that comprises interstitial material ~~including that includes the plurality of gaps having a diameter equal to or smaller than a selected effective diameter and that filters the raw gas.~~

23. (Original) The fuel reforming apparatus according to claim 22, wherein the reforming catalyst is carried by the filtering member on at least one face thereof.

24. (Original) The fuel reforming apparatus according to claim 22, further comprising soot removing means for removing soot that has been trapped by the soot trapping means.

25. (Original) The fuel reforming apparatus according to claim 21, further comprising soot removing means for removing soot that has been trapped by the soot trapping means.

26. (Original) The fuel reforming apparatus according to claim 22, wherein the soot removing means contacts soot that has been trapped by the soot trapping means with oxygen-containing gas.

27-30. (Cancelled)

31. (New) A fuel reforming apparatus comprising:

a reforming catalyst that reforms raw gas including hydrocarbonic fuel into reformed gas including hydrogen;

a filtering member comprised of an interstitial material including a plurality of gaps for trapping soot that is generated in the raw gas due to the hydrocarbonic fuel, that carries the reforming catalyst on at least one face of the filtering member, and that reforms the raw gas into the reformed gas while filtering the raw gas;

a raw material supply flow passage that causes the raw gas to flow along a first face of the filtering member and that supplies the raw gas to the filtering member; and
a processed gas flow passage that causes reformed and filtered gas to flow along a second face of the filtering member, wherein the reforming catalyst is carried by the filtering member on the second face on the side of the processed gas flow passage.